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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,313	11/06/2003	Volker Linzer	C-574	7972

7590 10/06/2005

Sun Chemical Corporation
222 Bridge Plaza South
Fort Lee, NJ 07024

EXAMINER

SASTRI, SATYA B

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/702,313

Applicant(s)

LINZER ET AL.

Examiner

Satya B. Sastri

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1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 9,12 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8,10,11,13,14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-16 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/5/04, 4/11/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to application filed on November 6, 2003. *Claims 1-16* are now pending in the application.

2. It is noted that the restriction requirement requested in a telephonic message on September 11, 2005 is changed into an election of species requirement as presented below.

Election of Species

3. This application contains claims directed to the following patentably distinct species of the claimed invention: energy curable composition comprising a (a) neutralization product of an ethylenically unsaturated acidic resin, a base and water and a (b) neutralization product of an ethylenically unsaturated basic resin, an acid and water.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, *claims 1-8, 10, 11, 13, 14, 16* are drawn to species (a) and *claims 9, 12, 15* are drawn to species (b).

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

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Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. In a telephonic request with Mr. Sidney Persley on September 13, 2005 a provisional election was made with traverse to prosecute the invention drawn to species (a). *Claims 1-8, 10, 11, 13, 14, 16* are drawn to the elected species (a). Affirmation of this election must be made by applicant in replying to this Office action. *Claims 9, 12, 15* are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102 and 103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. ***Claims 1-8, 10, 11, 13, 14 and 16*** are rejected under 35 U.S.C. 102(b) as anticipated by Rooney et al. (WO 99/19369).

At the outset, it is noted that WO/991936 is used for date purposes while US 6,559,222 B1 is used as the English equivalent in the body of the rejection below.

Prior art to Rooney et al. discloses an aqueous polymer dispersion comprising a polymer, which is energy curable (abstract). The polymer is characterized by a molecular wt. of about 1,000-20,000 and an acid number 100-300 (column 3, lines 52-55). The polymers may be prepared, for example, by reacting styrene, maleic anhydride copolymer, a hydroxyl terminated acrylate and a monofunctional alcohol to form a partial ester. Subsequently, any remaining anhydride functionalities may be opened by water/ammonia mixture. Thus, instant claims are anticipated by the prior art.

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8. *Claims 1, 4, 5, 8, 10, 11, 14* are rejected under 35 U.S.C. 102(b) as anticipated by Lundy et al. (US 5,393,643).

Lundy et al. disclose a waterborne photopolymerizable composition comprising a latex binder polymer having an acid functionality wherein the acid functionality is neutralized to at least 1 mole% with an aminoacrylate (abstract). A variety of acid functional monomers are disclosed in column 2, lines 20-32. The latex polymer may have an acid number between 40 to 250 and a molecular wt. in the range of 500-200,000. At least 1% acid functionality may be neutralized with an aminoacrylate, preferably tertiary aminoacrylate. The compositions may include neutralizing base in amounts up to 40% by wt. (column 2, lines 1-5, example 1, sample #3). Thus, instant claims are anticipated by the prior art.

9. *Claims 1, 2, 4, 5-8, 11 and 14* are rejected under 35 U.S.C. 102(b) as anticipated by Hagewara et al. (GB 2,257,711 A).

Prior art to Hagewara et al. concerns aqueous photosensitive resin composition comprising a carboxyl-containing resin (b) an amine compound (c) a photo curable unsaturated compound and (d) photo polymerization initiator. Components (a) may be acid/anhydride copolymer, wherein the anhydride groups have been ring opened with an alcohol or a primary amine, which have a polymerizable unsaturated bond. Carboxyl group-containing resin may be post esterified in part with hydroxyl acrylates such as hydroxyethyl (meth)acrylate, hydroxypropyl (meth)acrylate etc. (page 5, lines 9-24). Additionally, the composition includes an

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amine compound, such as ammonia, triethyl amine, diethanolamine etc. (page 5, lines 24-35, page 6 lines 1-60. Thus, *claims 1, 2, 4, 5-8, 11 and 14* are anticipated by the prior art.

10. *Claim 3* is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hagewara et al. (GB 2,257,711 A).

Prior art to Hagewara et al. elaborated above in paragraph 9 teaches a variety of alcohols to esterify the anhydride component of anhydride/carboxyl-containing resin. While the preferred compound is a hydroxyl-containing acrylate monomer, primary and secondary alcohols are also disclosed as being useful (page 5, lines 9-24). Thus, prior art recognizes the equivalency of these alcohols as esterifying agent. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a combination of hydroxyl-containing acrylate and a primary or secondary alcohol in lieu of the disclosed alcohols, based on their art recognized equivalence and with a reasonable expectation of success, and thereby obtain the instant invention.

Conclusion

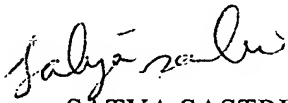
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 272 1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 272 1114.

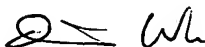
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The fax phone number for the organization where this application or proceeding is assigned is (571) 272 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SATYA SASTRI

September 16, 2005


DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1713